

"My overall assessment is that QSI 532ws is a laboratory-quality camera that's an outstanding value for amateur astronomers who demand top-notch imaging performance."

"I ordered one for myself" - Richard Berry

"After working with the evaluation QSI 532ws for another ten weeks, I ordered one for myself.

When mine arrived (S/N#502314), the first thing I did was measure the basic parameters: they came out almost identical to those of the test camera. Shortly after that, a friend received his QSI 532ws, and it tested out with the same basic parameters. I must say that **I am impressed with consistency of QSI's product**, and personally very pleased that my own camera tests every bit as good as the evaluation camera."

"What impressed me in looking over the mass of data I collected is that the **QSI 532ws' images are exceptionally clean and free of readout artifacts.** Because I write image-processing software and collect sample images whenever I can, I've seen bias frames from many different CCD cameras."

"Bias frames should be perfectly flat, showing no features at all except random pixel-to-pixel variation due to readout noise. In reality, many cameras produce bias frames with quasi-random horizontal stripes, vertical patterns, plus a few (or sometimes many) dark or light columns. Taken together, these artifacts are called pattern noise. In some cameras, the pattern is the same in every bias frame; in others, the pattern is different in every bias frame. Repeating pattern noise is better than changing pattern noise, but all pattern noise is bad. Pattern noise points to shortcuts or unsolved problems in the design or construction of the CCD camera. However, **the QSI 532ws' bias frames looked so close to ideal that I was amazed...** I can say that for all practical intents and purposes, the test **QSI 532ws bias frames are textbook perfect.**"

"The QSI 532ws has a thermoelectric cooler. **When you turn on the cooler, the camera cools rapidly, reaches the set point temperature, and then stays right at that temperature without oscillation above and below the set point.**"

"...my results suggest that QSI has succeeded in squeezing every bit of performance possible from Kodak's CCD... In imaging, non-linear response in the CCD can lead to gradients in the image. However, **the QSI 532ws test camera passed the linearity test with flying colors.**"

"The QSI 532ws camera should be capable of 10-millimag photometry or better over its entire dynamic range. When I did a photometry run with the test camera, I achieved 5-millimag accuracy quite easily. Observing exoplanet transits should pose no problem for the QSI 532ws camera... **The curve looks as smooth as any of the light curves I found in the literature. The internal consistency of the data was excellent:** the standard deviation of the differential magnitude between the comp and check star was 0.0055 magnitudes, in agreement with the expected error due to shot-noise and readout noise."

"Bias frames were noise-free, cooling was rock stable, and all-around performance was excellent. It has a compact footprint and **the workmanship is impressive.** I ordered one for myself, and when it arrived, I ran more tests on it, and found mine every bit as good as the test camera."

"...the design of the 532ws is aesthetically pleasing. The camera is compact, rounded, and feels solid and good when you handle it. The machining is accurate, and parts fit very well."

"Speaking as a professional writer/editor, **I would award the manual that came with the 532ws the highest marks for clarity.** It is clear, well written, nicely illustrated, and complete."

"I was impressed with the high sensitivity, the clean bias frames, the low dark current, the uniformity of the CCD's response to light, and the smooth, reliable operation of the shutter and filter wheel. **My overall assessment is that QSI 532ws is a laboratory-**

"At the telescope, the QSI 532ws was a pleasure to work with. I never needed to fight the camera to get good results; instead, it made my job easy."

quality camera that's an outstanding value for amateur astronomers who demand top-notch imaging performance."

– Richard Berry

[Download Richard Berry's Full Review of the QSI 532ws >>](#)

Note: *The PDF is over 8mb so give it a minute to download*

Richard Berry has written or co-authored numerous astronomy books including, *The Handbook of Astronomical Image Processing*, *Build Your Own Telescope*, and *Discover the Stars*. Richard was also a former Editor of Astronomy magazine and helped popularize amateur CCD astronomy in the 1990's with *The CCD Camera Cookbook*.

